

Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A variable tumble flow-generating device of an engine, ~~which comprises~~comprising:

a bulkhead for dividing an intake port into a first passage and a second passage;

an opening degree control valve for selectively changing an opening degree of the first and second passages; and

driving means for operating the opening angle control valve; and wherein the bulkhead includes portions along an air inlet facing end which comprise at least one protrusion and recess, the first passage has a different cross-sectional area than the second passage at the air inlet facing end with an edge of the air inlet facing end minimizing flow resistance through the first and second passages.

2. (Original) The variable tumble flow-generating device of the engine according to Claim 1, in which an air inlet-facing end of the bulkhead has a slant surface shape which is slanted at a desired angle.

3. (Original) The variable tumble flow-generating device of the engine according to Claim 1, in which an air inlet-facing end of the bulkhead has a shape formed by intersecting two of slant surfaces slanted at a desired angle, in an opposite direction.

4. (Original) The variable tumble flow-generating device of the engine according to Claim 1, in which an air inlet-facing end of the bulkhead has a round shape.

5. (Original) The variable tumble flow-generating device of the engine according to Claim 1, in which an air outlet-facing end of the bulkhead has a slant surface shape which is slanted at a desired angle.

6. (Original) The variable tumble flow-generating device of the engine according to Claim 1, in which an air outlet-facing end of the bulkhead has a shape formed by intersecting two of slant surfaces slanted at a desired angle, in an opposite direction.

7. (Original) The variable tumble flow-generating device of the engine according to Claim 1, in which an air outlet-facing end of the bulkhead has a round shape.

8 - 11. Cancelled (without disclaimer or prejudice).

12. (Withdrawn) A manufacturing method of a variable tumble flow-generating intake port, which comprises the steps of:

preparing an upper mold in which a space for forming a first passage of an intake port is provided;

preparing a lower mold in which a space for forming a second passage of the intake port is provided;

forming a stepped portion being capable of assembling with a metal plate, at a portion where the upper and lower molds are assembled with each other;

assembling the metal plate serving as a bulkhead, with the stepped portion;

assembling the upper mold with the lower mold and filling a molding sand into the resulting mold assembly;

disassembling the mold disassembly so as to release an intake port core integral with the metal plate; and

assembling and casting the intake port core with a mold in which a cylinder head is cast, and removing the casting sand from the intake port core such that the metal plate serving as the bulkhead remains in the intake port.

13. (Withdrawn) The manufacturing method of a variable tumble flow-generating intake port according to Claim 12, in which the first passage and the second passage are formed so as to have a different cross-section area, in the upper mold-preparing step and the lower mold-preparing step, respectively.

14. (Withdrawn) The manufacturing method of a variable tumble flow-generating intake port according to Claim 12, in which the metal plate assembled in the metal plate-assembling step has a bent portion, so that the first passage and the second passage are formed so as to a different cross-section area by the bent portion.

15. (Withdrawn) The manufacturing method of a variable tumble flow-generating intake port according to Claim 12, in which the stepped portion in the stepped portion-forming step is formed at the upper mold and the lower mold, respectively, in a groove shape, so that a center in a thick-wise direction of the metal plate is located on a mold separation line between the upper mold and the lower mold.

16. (Withdrawn) The manufacturing method of a variable tumble flow-generating intake port according to Claim 12, in which the stepped portion in the stepped portion-forming step is formed at the upper mold in a groove shape, so that a lower mold-facing surface of the metal plate is located on a mold separation line between the upper mold and the lower mold.

17. (Withdrawn) The manufacturing method of a variable tumble flow-generating intake port according to Claim 12, in which the stepped portion in the stepped portion-forming step is formed at the lower mold in a groove shape, so that

a upper mold-facing surface of the metal plate is located on a mold separation line between the upper mold and the lower mold.

18. (Withdrawn) The manufacturing method of a variable tumble flow-generating intake port according to Claim 12, in which the stepped portion is formed at the upper mold in a groove shape and formed at the lower mold in a protrusion shape.

19. (Withdrawn) The manufacturing method of a variable tumble flow-generating intake port according to Claim 12, in which the stepped portion is formed at the upper mold in a protrusion shape and formed at the lower mold in a groove shape.

20. (Withdrawn) The manufacturing method of a variable tumble flow-generating intake port according to Claim 12, in which a positioning hole is formed at the metal plate assembled in the metal plate-assembling step, and a protrusion to be inserted into the positioning hole is formed in the upper mold-preparing step.

21. (Withdrawn) The manufacturing method of a variable tumble flow-generating intake port according to Claim 12, in which the metal plate assembled in the metal plate-assembling step is made of a material having a higher melting point than that of a base metal for forming the cylinder head.

22. (New) A variable tumble flow-generating device of an engine comprising:
a bulkhead for dividing an intake port into a first passage and a second passage;

an opening degree control valve for selectively changing an opening degree of the first and second passages; and

driving means for operating the opening angle control valve; and wherein

the bulkhead includes an air inlet facing end with grooves formed thereon, the first passage has a different cross-sectional area than the second passage at the air inlet facing end and edge of the air inlet facing end minimizes airflow resistance through the first and second passages.

23. (New) The variable tumble flow-generating device of the engine of claim 1 wherein:

a cross-sectional area of the first and second passages at the air inlet facing end and the edge of the air inlet facing end provide a flow of air which minimizes air flow resistance through the first and second passages.

24. (New) The variable tumble flow-generating device of the engine of claim 22 wherein:

a cross-sectional area of the first and second passages at the air inlet facing end and the edge of the air inlet facing end provide a flow of air which minimizes air flow resistance through the first and second passages.